

15-57-10-14664

Ground Water Salt Content in the Northwestern (Cont.)

from 4.4 to 14 and to 26.3 milligrams per liter of  $O_2$ ; pH is 6.6 to 7.93. Ground waters in the Lozoven'ka reservoir area are basically weakly mineralized and belong to the class of calcium bicarbonate waters (according to O. A. Alekin--

$\overset{Ca}{e_{III}}$ ). Calcium sulfate ( $\overset{Ca}{S_{III}}$ ) and calcium chloride ( $\overset{Ca}{Cl_{III}}$ )

can be found. Water mineralization results chiefly from the dissolution of carbonate rocks, caused by active carbonic acid, the content of which is 1.2 to 23.7 milligrams per liter. The authors have experimentally established that the waters are not saturated with calcium carbonate. The presence of sulfate and chloride waters is associated with leaching of gypsum-bearing rocks.

Card 3/3

G. B. Khazonov

*DENISOV, P.V.*

USSR/ Cosmochemistry. Geochemistry. Hydrochemistry

D.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11489

Author : Denisov P.V., Bugayev A.L.

Inst : Academy of Sciences USSR

Title : Chemical Composition of Atmospheric Precipitation in Northeastern Part of the Ukraine

Orig Pub : Dokl. AN SSSR, 1956, 108, No 5, 879-881

Abstract : Investigated were precipitation in the area of Khar'kov from 1 April 1954 to 1 April 1955. Collected and analyzed were 37 samples of rain and 18 samples of snow. Results of the entire set of hydrochemical investigations in juxtaposition with certain meteorological data are presented in the form of graphs. Data of chemical analyses of  $\text{Na}^+$ ,  $\text{Mg}^{2+}$ ,  $\text{Ca}^{2+}$ ,  $\text{K}^+$ ,  $\text{HCO}_3^-$ ,  $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ , by seasons, are summarized in a table. Total mineralization of precipitation fluctuated from 13.14 to 72.52 mg/liter. Dependence of chemical composition of precipitation on meteorological conditions is noted. For example, in thunderstorm waters  $\text{NO}_3^-$  content is sharply increased. Mineralization of rain water is somewhat higher than that of snow water. Total amount of salts released per annum over 1 hectare is ~ 257

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USSR/ Cosmochemistry, Geochemistry. Hydrochemistry

D.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11489

kg; including (in kg):  $\text{SO}_4^{2-}$  ~80,  $\text{HCO}_3^-$  ~68,  $\text{Cl}^-$  28.7, Ca 36.3,  
Mg 12.6, Na 14.1.

DE NISOV, P. V.

Chemical composition of atmospheric precipitation in Northern Tien-Shan. R. V. Denisov. Doklady Akad. Nauk S.S.S.R. 110, 812-4 (1956). Typical analyses for rain water collected over a year in Northern Tien-Shan are given. In this period (1952-3) the following descending

order of ion concn. was found: Ca, Na, and Mg and  $\text{HCO}_3$ ,  $\text{SO}_4$ , Cl, K, Cl, and  $\text{SO}_4$  predominate in snow; Ca,  $\text{SiO}_2$ , and  $\text{HCO}_3$  predominate in the rain waters. G. M. K.

2

Chemical composition of rain water near Kharkov. P. 2  
 G. I. Denisov and A. L. Bugalov (Zoochem. Inst., Kharkov).  
 Doklady Akad. Nauk Ukr. R. S. R. 1957, 161-4 (Russian  
 summary).--The chem. compn. of rain water collected near  
 Kharkov from April 1, 1954, to April 1, 1955, varied greatly  
 both qualitatively and quantitatively. Total content of  
 mineral substances varied from 21.48 to 72.52 mg./l. These  
 variations are influenced by such things as temp. of the air,  
 form and direction of the wind, and thunder-storm phe-  
 nomena. The chem. compns. are tabulated. G. S. M.

DENISOV, P.V.

Using plane-parallel end measures for measuring lengths. Izv.  
tekh. no.2:7-10 Mr-Ap '58. (MIRA 11:3)  
(Length measurement)

DENISOV, P.V. [Denysov, P.V.]; BUGAYEV, A.L. [Buhaiov, A.L.]; USOVA, Ye.M.

Chemical composition of snow [with summary in English]. Dop. AN  
URSR no.3:289-291 '58. (MIRA 11:5)

1.Kharkivs'kiy zootekhnicniy institut. Predstavleno akademikom  
AN USSR A.I. Kiprianovym. (Snow)

LEVCHENKO, V.M.; DENISOV, P.V.

Origin of the water composition of the alkaline thermal springs  
in Altyn-Arasan. Gidrokhim.mit. 29:174-178 '59.  
(MIRA 13:5)

1. Kirgizskiy filial Akademii nauk SSSR, Frunze.  
(Altyn-Arasan--Springs)



DENISOV, P.V.; KADYROV, V.K.

Funnel with limited airtightness for use in filtering. Izv.  
AN Kir.SSR.Ser.est.1 tekhn.nauk 2 no.3:107-110 '60.(MIRA 13:9)  
(Filters and filtration) (Chemical apparatus)

DIMITRIYEV, V.D., otv.red.; PRUKOP'YEV, I.P., red.; SIDOROV, P.A.,  
red.; DENISOV, P.V., red.; PERLOV, P.V., tekhn.red.

[Economic and cultural development of the Chuvash A.S.S.R.]  
Razvitie ekonomiki i kul'tury Chuvashskoi ASSR. Cheboksary,  
Chuvashskoe gos.izd-vo, 1960. 327 p.

(MIRA 14:5)

1. Cheboksary. Chuvashskiy nauchno-issledovatel'skiy institut  
yazyka, literatury, istorii i ekonomiki.  
(Chuvashia--Economic conditions) (Chuvashia--Culture)

DENISOV, P. V.

Dissertation defended for the degree of Candidate of Historical Sciences  
at the Institute of Ethnography imeni N. N. Miklukho-Maklay

"Religious Beliefs of the Chuvash."

Vestnik Akad. Nauk, No 4, 1963, pp 119-145

DENISOV, Petr Vasil'evich, kand. sel'khoz. nauk; STIKHIN, Mikhail  
Filadel'fovich, kand. sel'khoz. nauk; PERKOVA, G.A., red.

[Winter rye and wheat in the non-Chernozem belt] Ozimaia  
rozh' i pshenitsa v nechernozemnoi polose. Leningrad,  
Kolos, 1965. 245 p. (MIRA 19:1)

DENISOV, R.

Degree of standardization; yes or no? Standartizatsia  
29 no.6:18 Je '65. (MIRA 18:12)

DENISOV, R.I.

Standard and light. Standartizatsiia 29 no.7:37-40 J1 '65.  
(MIRA 18:11)

DENISOV, Rodion Osipovich; GALKA, Dmitriy Vladimirovich, red.

[Quality control of welded joints; manual for students of mechanical and shipbuilding departments] Kontrol' kachestva svarnykh shvov i soedinenii; uchebnoe posobie dlia studentov mekhanicheskogo i korablestroitel'nogo fakul'tetov. Gor'kii, Gor'kovskii in-t inzhenerov vodnogo transporta., 1964. 45 p. (MIRA 17:9)

DENISOV, Rodion Osipovich; BUKOVSKIY, A.D., inzh., retsenzent;  
REVZYUK, G.A., inzh., retsenzent; ADLERSHTEYN, L.TS.,  
nauchn. red.; NIKITINA, M.I., red.

[Use of mathematical statistics in the technology of building ship hulls] Primenenie matematicheskoi statistiki v tekhnologii sudovogo korpusostroenia. Leningrad, Sudostroenie, 1965. 175 p. (MIRA 18:7)



ACC NR: AP6033626

(A)

SOURCE CODE: UR/0416/66/000/010/0056/0040

AUTHOR: Denisov, S. (Lieutenant Colonel)

ORG: None

TITLE: A special tactical training of a bridge company for erecting a low-water bridge

SOURCE: Ty1 i snabsheniye sovetskikh voennoyemkikh sil, no. 10, 1966, 36-40

TOPIC TAGS: military engineering, structural engineering, ground force training

ABSTRACT: The tactics and techniques used by an engineering company for approaching a river-crossing site and erecting a low two-lane wooden bridge are discussed. It was assumed that the training maneuver was a part of a tactical offensive operation to be carried out in a battle situation by crossing areas subjected to nuclear and gas attacks. The maneuver was made for the purpose of training the company for execution of a 28-km march from the base to the river, and for the construction of a bridge at the crossing site. The construction site was selected after careful examination of survey data and maps prepared by a reconnaissance patrol. The preliminary investigations included also the studies of river works, bridge structures, available construction materials and equipment. The company was composed of three platoons provided with standard bridge elements, piledrivers, pontoons, boats, scaffolds, automotive cranes, and electric power plant, two radio stations, decontamination means, water tank and other auxiliary equipment. The preparation for the march, formation of columns, transmission of orders, time

Card 1/2

ACC NR: AP6053626

schedule, decontamination actions, intercommunication, signaling, reconnaissance and other actions performed by the company during its movement to the construction site are discussed and illustrated on a map. Another map shows the organization of the bridge works in accordance with the order given by the company commander. The map shows the river (about 45 m wide, 3.7 m deep) and the location of various construction equipment. The river works were executed by the first and second platoons while the third platoon was in charge of the power plant, cranes and the preparation of construction materials. The organization of works and the actions of platoons and detachments are discussed including the protective measures taken during a simulated nuclear-gas attack. At the end of the construction, an enemy attack and defensive counteractions were simulated. Orig. art. has: 2 maps.

SUB CODE: 13  
05/ 15/ SUBM DATE: None

Card 2/2

DENISOV, S., gvardii podpolkovnik; SIMONOV, I., gvardii mayor; SHTEREN-  
SHUS, I., gvardii mayor

Fruits of collective work. Voen.vest. 43 no.11:72-82 N '63.  
(MIRA 16:12)

AYZENSHTADT, I.A.; VOL'FSON, N.B.; DENISQV, S.A.; MUSIN, R.A.

Genetic connection between copper-molybdenum ore formation in the Almalyk region and intrusions, and its importance for copper are prospecting. Uzb.geol.zhur.no.3:7-17 '60.

(MIRA 13:11)

1. Glavgeologiya UzSSR i Institut geologii AN UzSSR.  
(Almalyk region--Copper ores)(Almalyk region--Molybdenum ores)

DENISOV, S.A.

Experimental basis for reliable core sampling. Mat.GKZ no.2:83-95  
'61. (MIRA 16:3)  
(Ores—Sampling and estimation)

DENISOV, S.A.; DEDY, V.Yu.

logs of open pits as a method for studying the geology  
of deposits. Uzb. geol. zhur. 7 no.3:83-84 '63.  
(MIRA 16:11)

1. Almalykskaya geologo-razvedochnaya ekspeditsiya.

DENISOV, S.A.

Estimation of changes in the parameters of mineralization. Uch. zap.  
SAIGIMSa no.7:137-147 '62. (MIRA 17:2)

1. Almalykskaya geologo-razvedochnaya ekspeditsiya Glavnogo upravleniya  
geologii i okhrany neдр pri Sovete Ministrov UzSSR.

DENISOV, S. I.

DENISOV, S. I.--"Purposefulness and Exposition Derived From the Overall Concept as a Means of Overcoming Formalism in the teaching of Mathematics in Intermediate Schools."\*(Dissertation for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions.) Leningrad State Pedagogical Institute A. I. Gertsen, Leningrad, 1955

SO: Knizhnaya Letopis' No. 25, 18 Jun 1955

\* For Degree of Candidate in Pedagogical Sciences



DENISOV, S.I.

Studying conditions of nickel chlorination and its combination  
with chlorine gas. Izv. vys. ucheb. zav.; tsvet. met. 2 no.2:  
58-68 '59. (MIRA 12:7)

1. Leningradskiy politekhnicheskiy institut, Kafedra elektrometallurgii  
tsvetnykh metallov.  
(Nickel--Metallurgy) (Chlorine)

DENISOV, S.I.

Studying conditions of the chlorination of cobalt, iron, and  
their compounds by gaseous chlorine. Izv.vys.ucheb.zav.; tsvet.  
met. 2 no.4:59-65 '59. (MIRA 13:1)

1. Leningradskiy politekhnicheskii institut. Kafedra elektropiro-  
metallurgii tsvetnykh metallov.  
(Cobalt---Metallurgy) (Ore dressing)

DENISOV, S.I., Chem Tech Sci - - (diss) "Study of the physico-chemical conditions for the separate chlorination of nickel, cobalt and iron," Leningrad, 1960, 16 pp (Leningrad Mining Institute Im D. I. Plekhanov) (KL, 36-60, 114)

DENISOV, S.I.

Treatment of arsenic-cobalt ores by chlorination. Izv.vys.ucheb.  
zav.; tsvet.met. 3 no.2:69-73 '60. (MIRA 15:4)

1. Leningradskiy politekhnicheskoy institut, kafedra elektropiro-  
metallurgii tsvetnykh metallov.  
(Arsenic compounds) (Cobalt) (Ore dressing)

DENISOV, S.I., kand. tekhn. nauk

Operating conditions of charge-resistance furnaces in the production of silicon. Met. i gornorud. prom. no.6:27-29 N-D '62.  
(MIRA 17:8)

1. Ukrainskiy gosudarstvennyy proyektnyy institut tsvetnoy metallurgii.

DEGTYAREV, V.S.; RASPOPIN, V.T.; DENISOV, S.I.; PIGAREV, A.D.; TSEYDLER, A.A.

Ways of improving the smelting of nonferrous metal ores. TSvet.  
met. 36 no.6:21-29 Ja '63. (MIRA 16:7)

(Nonferrous metals--Metallurgy)

DEGTYAREV, V.S.; DENISOV, S.I., kand. tekhn. nauk

Briquetting the charge mixture for the production of aluminum-silicon alloys with the use of sulfuric acid. Met. i gornorud. prom. no.4:58-61 J1-Ag '64. (MIRA 18:7)

VASYUTINSKIY, N.A.; DENISOV, S.I.; RYS'YEVA, Yu.I.

Studying phase transformations during the heating of Podoqi  
kaolin. Ogneupory 29 no.10:466-471 '64. (MIRA 18:7)

1. Ukrainskiy gosudarstvennyy proyektnyy institut tsvalnoy  
metallurgii.



L 40551-65 EWT(n)/EPM(c)/EPR/EWP(j)/EWP(v)/T Pc-4/Pr-4/PS-4 TH/RI

ACCESSION NR: AP5003056

S/0119/65/000/001/0020/0021

AUTHOR: Denisov, S. I.; Kaledin, B. F.; Plotnikov, V. S.

TITLE: Use of UT-34 sealer for cementing and sealing parts in their settings

SOURCE: Priborostroyeniye, no. 1, 1965, 20-21

TOPIC TAGS: sealer, thiokol sealer / UT-34 sealer

ABSTRACT: Thiokol UT-34 sealer consists of the U-34 paste proper, No. 9 vulcanizing paste, and diphenylguanidine. The sealer is cured at room temperature (in 10-48 hrs) and can withstand -60+130C thereafter. Seven designs illustrate methods of mounting various optical glasses in grooved settings by means of the UT-34 sealer. The rubber-like sealer is recommended for joining parts that have different temperature-expansion coefficients, working under shock conditions, etc. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

Cord 1/1 598

MOVSESOV, E.Ye.; BYSTRENIN, M.N.; BRYNDIN, V.G.; DENISOV, S.I.

Production of rich titanium slag from an arizonite concentrate.

Met. i gornorud. prom. no.2:48-50 Mr-Ap '65. (MIRA 18:5)

L 27249-66

ACC NR: AP6009865

SOURCE CODE: UR/0413/66/000/004/0060/0060

AUTHORS: Denisov, S. I.; Shevaldin, P. V.; Plotnikov, V. S.; Kaledin, B. F.

ORG: none

TITLE: Method for fabricating mirrors. Class 32, No. 178957

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 60

TOPIC TAGS: glass product, grinding

ABSTRACT: This Author Certificate presents a method for fabricating mirrors from glass blanks by grinding and polishing their surfaces with subsequent deposition of a mirror film. To protect the mirror from deformations in the fabrication process and in operation, the glass blanks are first fastened in mounts with hermetic rubber. All the fabrication processes are then carried out and the mirrors are fastened to the products in the same mounts.

SUB CODE:13,11/ SUBM DATE: 31Oct63

Card 1/1 CC

UDC: 666.1.056

L 29808-66 EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) JD/WH

ACC NR: AP6020872

SOURCE CODE: UR/0383/66/000/001/0043/0045

AUTHOR: Donisov, S. I.; Ivanov, A. I.; Lekalova, L. I.

37  
B

ORG: none

TITLE: Industrial production of electrothermal silumin

4

SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 1, 1966, 43-46

TOPIC TAGS: aluminum alloy, silicon alloy, metal extraction, metal melting, kaolin, annealing

ABSTRACT: The electrothermal method for production of silumin developed by the All-Union Aluminum and Magnesium Institute is preferable to the conventional technique of producing this alloy by melting pure aluminum and silicon. The introduction of this method into industry will reduce the capital outlay (by 25-30%) and net cost of silumin production (by 4-5% for low capacity plants and by 30-40% for large enterprises). The electrothermal method for Silumin production is effective even when less than 20% aluminum from the initial kaolin is used. Experiments were conducted to find optimum conditions for enrichment of kaolins to produce alloys without using alumina. The kaolins used in the study had the following chemical composition in %:  $Al_2O_3$ --39.62;  $SiO_2$ --44.42;  $Fe_2O_3$ --1.6;  $TiO_2$ --0.9;  $(CaO+MgO)$ --0.2;  $P_2O_5$ --0.08; calcination loss--12.98. A batch of kaolin with an  $Al_2O_3$ :  $SiO_2$  ratio of 0.892 was roasted.

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Card 1/2

UDC: 669.713.6

I 29808-66

ACC NR: AP6020872

at various temperatures and then leached in a 200 g/l solution of alkali in  $\text{Na}_2\text{O}$  at a temperature of 90-95°C for one half hour. Curves are given showing the extraction of silica and alumina into solution as a function of roasting temperature. The extraction of silica into the solution increases sharply with temperature reaching a maximum of 73-77% at 900-1000°C. Roasting of kaolin at higher temperatures retards the transition of silica of the soluble phase. Extraction drops to 32% at 1300°C due to the formation of mullite which dissolves poorly in alkali solutions. Curves are also given showing the extraction of silica and alumina into solution as a function of annealing time. An increase in the annealing time past one-half hour has little effect on the silica extraction. Extraction shows a maximum at 150-200 g/l  $\text{Na}_2\text{O}$ . The experimental data are used as a basis for setting up a system for optimum production of electrothermal silumin without using alumina. Orig. art. has: 5 figures and 1 table. [JPRS]

SUB CODE: 11, 13 / SUBM DATE: none / ORIG REF: 002

L 32174-66 EWP(k)/EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) WH/WN/JD

ACC NR: AP6012168

SOURCE CODE: UR/0413/66/000/007/0095/0095

INVENTOR: Bryndin, V. G.; Denisov, S. I.; Ognev, R. K.

ORG: none

TITLE: Sealing or coating porous material with a carbon film.

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 95

TOPIC TAGS: sealing, coating, carbon film

ABSTRACT: An Author Certificate has been issued describing a method of sealing or coating porous materials, such as carbon-graphite or refractory materials, with a carbon film, making use of the thermal decomposition of carbon containing gases. To speed up the process and obtain a dense smooth surface, the work is carried out in a fluidized bed of graphite particles produced by carbon-containing gases while heating both the article being worked on and the carbon gases. [LD]

SUB CODE: 11/ SUBM DATE: 25Jun64

Card 1/1 *h8*

UDC: 621.793.14

ACC NR: AP6025800

SOURCE CODE: UR/0131/66/000/005/0052/0053

AUTHOR: Degtyarev, V. S.; Denisov, S. I.; Semenov, Yu. N.; Borodulin, P. Ya.

ORG: [Degtyarev, Denisov] Titanium Institute (Institut titana); [Semenov, Borodulin] Institute of Materials Science Problems, AN SSSR (Institut problem materialovedeniya AN SSSR)

TITLE: Boron carbonitride crucibles

SOURCE: Ogneupory, no. 5, 1966, 52-53

TOPIC TAGS: refractory compound, alundum, heat resistant material, chemical resistant material, temperature dependence, slag, boron nitride compound

ABSTRACT: In research studies on the reduction of molten iron-titanium concentrates by gases, the refractory material of the crucibles must withstand temperatures up to 1700°C and the chemical interaction of metal and slag. Tests were conducted on refractory crucibles made from porcelain, alundum, graphite, molybdenum, and boron carbonitride. Reduction of molten iron-titanium concentrates was carried out in a Tamman furnace under an inert gas to prevent burning during reduction. A schematic diagram of the apparatus is shown. The crucible, filled with a 50g charge, was placed on a graphite stand in the highest temperature zone and reducing gas was passed through a boron carbonitride tube which was inserted 5-10 mm into the melt. The effect of purging

UDC: 666.78

Card 1/2

ACC NR: AP6025800

time, coefficient of excess gas, and process temperature on the degree of reduction were determined. The influence of the first two factors was studied at 1600°C. The chemical compositions of the concentrate and of final products are presented. As a result of purging with reducing gas, metallic oxides were reduced to the metallic state which deposited in the form of beads on the crucible walls. All of the refractory materials except boron carbonitride were unsatisfactory: porcelain and alundum cracked, graphite burned during reduction of the metallic oxides, and molybdenum dissolved in the melt. Boron carbonitride, which performed the best, was produced by nitriding compressed boron carbide. The boron carbide powder (3 to 40  $\mu$ k) was composed of 73% boron, 20% combined carbon, and 2.5% free carbon. After drying, the powder was compressed under a pressure of 150-200 kg/cm<sup>2</sup> into crucibles, positioned in the Tamman furnace, filled with boron nitride powder, and nitrided at 1800-1900°C. The finished crucible contained 82-83% boron nitride, 17-18% graphite, and 18-22% porosity. The physical properties are given. During reduction of the iron-titanium concentrate at 1600-2000°C, the titanium slag and the metallic phase did not react with the crucible walls, except by wetting them. The crucibles made of boron carbonitride were heat resistant and did not crack after quenching in water from 1400°C. Orig. art. has: 1 figure, 1 table.

SUB CODE: 11/

SUBM DATE: none/

ORIG REF: 002

Caru.2/2



DENISOV, S.N.

Mechanized production of lime emulsions and plastering mortars.  
Transp. stroi. ll no.1:49 Ja '61. (MIRA 14:1)

1. Zamestitel' nachal'nika Kuybyshevskoy nauchno-issledovatel'skoy  
stantsii Orgtransstroya.  
(Lime) (Mortar)

21.6000

4435  
S/120/62/000/005/008/036  
E039/E420

AUTHORS: Agafonov, V.P., Govorkov, B.B., Denisov, S.P.,  
Minarik, Ye.V.

TITLE: Determination of the efficiency of recording  
gamma-quanta by means of monochromatization of a  
beam of bremsstrahlung

PERIODICAL: Pribery i tekhnika eksperimenta, no.5, 1962, 47-50

TEXT: Description is given of a new method of investigating the energy dependence of counter efficiency. In the path of a collimated beam of bremsstrahlung (diameter 3 cm) is placed a lead target which becomes an intense source of electron positron pairs, emitted primarily in the same direction as the incident  $\gamma$  quanta. Electrons of a definite energy  $E_0$ , selected from the beam by means of a magnetic field, collide with a second lead target and produce  $\gamma$  quanta of energy  $E_\gamma$  (the target is sufficiently thin to avoid the probability of double radiation and for multiple scattering to be negligibly small). These  $\gamma$  quanta of energy  $E_\gamma$  are allowed to enter the telescope detector  $T_\gamma$  which is under investigation. Measurements were carried  
Card 1/2

Determination of the efficiency ...

S/120/62/000/005/008/036  
EO39/E420

out on a beam of bremsstrahlung from the Physics Institute's synchrotron at 265 MeV. It is shown that the efficiency of a  $\gamma$  telescope rises steadily from a few % at 20 MeV to  $\sim 40\%$  at  $\sim 150$  MeV. Measurements of efficiency at two values of  $E_\gamma$  were made for other  $\gamma$  telescopes of similar construction and the results agreed within the statistical error. The variation of efficiency with thickness of the lead converter was also measured for  $E_\gamma = 60.8$  MeV. A flat maximum at  $\sim 20\%$  is obtained for a thickness of 8 mm. There are 4 figures.

ASSOCIATION: Fizicheskiy institut AN SSSR  
(Physics Institute AS USSR)

SUBMITTED: December 25, 1961

Card 2/2

S/056/62/042/004/013/037  
B163/102

AUTHORS: Govorkov, B. B., Denisov, S. P., Minarik, Ye. V.

TITLE: Elastic photoproduction of  $\pi^0$  mesons on carbon at 155 Mev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42  
no. 4, 1962, 1010-1012

TEXT:  $\gamma$  rays with an average energy of 155 Mev from the FIAN synchrotron were used to produce  $\pi^0$  mesons in the reaction  $\gamma + C^{12} \rightarrow C^{12} + \pi^0$ . The angular distribution of the  $\pi^0$  mesons was determined by coincidence measurements of the two decay  $\gamma$  quanta with two  $\gamma$  ray telescopes, each consisting of two conventional fluid scintillation counters with a 5 mm lead converter in front. The telescopes were arranged in a plane whose inclination against the primary  $\gamma$  beam determined the average angle of emission of the  $\pi^0$  mesons recorded. The experimental differential cross section for the elastic photoproduction of  $\pi^0$  mesons is in good agreement with

Card 1/2

S/056/62/042/004/013/037  
B163/B102

Elastic photoproduction of...

theoretical values calculated in the impulse approximation under the assumption that protons and neutrons contribute equally to the coherent photoproduction, and that the distribution of nuclear matter in the  $C^{12}$  nucleus equals the charge distribution known from electron scattering experiments. ✓ 40

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR) 45

SUBMITTED: November 23, 1961

Card 2/2

L 17620-63

EWT(m)/BDS AFFTC/ASD

S/056/63/044/003/018/053

54  
53

AUTHOR: Govorkov, B. B., Denisov, S. P., and Minarik, Ye. V.

TITLE: Near threshold photoproduction of <sup>19</sup>neutral mesons of nucleiPERIODICAL: Zhurnal eksperimental'noy i tekhnicheskoy fiziki, v. 44, no. 3,  
1963, 878-886

TEXT: Earlier experiments by researchers of both the East and West showed that the photoproduction of mesons by quanta of energy up to 200 Mev is basically due to elastic coherent production. The present paper presents the measurement of the angular dependence of the  $\pi^0$ -meson photoproduction cross section on Be, Al, Cu, Cd, and Ta nuclei for 154 Mev mean primary photon energies. The  $\pi^0$ -mesons were observed by recording coincidences of  $\pi^0 \rightarrow \gamma + \gamma$  decay  $\gamma$ -quanta with the aid of two scintillation telescopes. An analysis of the results obtained shows that the main contribution to the cross section is from elastic coherent photoproduction. A more detailed analysis of experimental results will be published at a later date. A. M. Baldin and A. I. Lebedev evaluated the theoretical implications of the experimental results. There are 8 figures.

Card 1/2

L 17620-63

S/056/63/044/003/018/053 /

Near threshold photoproduction...

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics)  
Institute im. P. N. Lebedev of the Academy of Sciences USSR

SUBMITTED: October 25, 1962

Card 2/2

L 10236-63

HDS/EWT(m)---AFFTG/ASD---IJP(G)

ACCESSION NR: AP300C035

S/0056/63/044/005/1463/1469

AUTHOR: Govorkov, B. B.; Denisov, S. P.; Lebedev, A. I.; Minarik, Ye. V.

TITLE: High partial waves in the photoproduction<sup>19</sup> of neutral pions on protons

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no. 5, 1963, 1463-1469

TOPIC TAGS: Neutral pion photoproduction, threshold reactions, partial waves

ABSTRACT: The angular distribution of neutral pions produced on protons by photons of 181 MeV energy was measured with an aim at comparing directly the experimental results with the exact dispersion-relation calculations, which hitherto has met with some difficulties. An increase in the experimental accuracy and a determination of experimental quantities that can be calculated without the need for taking the dispersion integrals into account can help account for the remaining disparity. The authors describe an accurate measurement of the angular distributions of the neutral-pion photoproduction on protons near threshold, and give an analysis of the results from the point of view of reconciliation of experiment with dispersion-relation calculations. The

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L 10236-63

ACCESSION NR: AP3000035

6

neutral pions were registered by simultaneously counting the two decay photons by scintillation-counter telescopes. The net results were more accurate angular distributions for neutral-pion photoproduction near threshold, better agreement with the one-dimensional dispersion-relation calculation, and detection of some disparity between the experimental data and the dispersion-relation calculations if no account is taken of the resonant meson states. This may indicate that the resonance meson states make some contribution to the investigated process. "The authors thank P. A. Cherenkov for interest in this work, A. M. Baldin for valuable advice, A. V. Kutsenko for help in the work with the computer, I. A. Yegorov for numerical estimates, A. G. Gerasimova for help in carrying out the experiments, and the whole synchrotron crew of the Physics Institute of the Academy of Sciences." There are five figures and three tables.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva, Akademii nauk SSSR  
(Physics Institute, Academy of Sciences)

SUBMITTED: 28Nov63 DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH

NR REF SOV: 007

OTHER: 008

Card

2/2/64

L 13620-63

EWI(m)/BDS AFFTC/ASD

ACCESSION NR: AF3003098

S/0056/63/044/006/1780/1786

59  
52

AUTHOR: Govorkov, B. B.; Denisov, S. P.; Minarik, Ye. V.

TITLE: Determination of nuclear dimensions<sup>19</sup> from differential cross sections for neutral pion photoproduction

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1780-1786

TOPIC TAGS: nuclear dimension, neutral pion photoproduction, angular distribution, cross section, amplitude

ABSTRACT: The results of neutral pion photoproduction are presented for a mean primary photon energy of 182 MeV. These data, along with the angular distributions of neutral pions obtained in earlier experiments for 154 MeV energy, are analyzed in order to obtain some parameters of the nucleon distribution in Be, C, Al, Cu, Cd, Ta, and Pb nuclei. The experimental apparatus and the setup of the experiments will be described elsewhere (ZhETF, in press). The results agree satisfactorily with the uniform model in the case of Cu, Cd, and Ta, which in the case of these metals coincide with the results of the trapezoidal model. The values obtained for the amplitudes can also be reconciled with the calcula-

Card 1/2

L 13620-63

ACCESSION NR: AP3003098

7  
tions. "In conclusion the authors thank P. A. Cherenkov and A. M. Baldin for interest in their work, S. N. Sokolov and L. N. Shtarkov for helpful consultations on the analysis of the experimental data by the least-squares method, and also the cyclotron crew of the Physics Institute. We would also like to thank A. V. Kutsenko, P. N. Komolov, and the staff of the computing department of the Physics Institute for help with the calculations on the electronic computers." Orig. art. has: 11 figures, 5 formulas, and 2 tables.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR  
(Physics Institute, Academy of Sciences, SSSR)

SUBMITTED: 25Feb63date acq/ 23Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 006

Card 2/2

L 13921-65 EWT(m)/T/EWA(m)-2 ESD(t)  
ACCESSION NR: AP4047884

S/0056/64/047/004/1199/1201

AUTHORS: Govorkov, B. B.; Denisov, S. P.; Lebedev, A. I.; Minarik, Ye. V.; Kharlamov, S. P.

TITLE: Photoproduction of neutral pions by protons at 210 MeV

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 4, 1964, 1199-1201.

TOPIC TAGS: photoproduction, neutral pion, gamma proton interaction, dispersion relation, photoproduction cross section

ABSTRACT: In view of its significance to a complete phase shift analysis and the information it can yield on the applicability of dispersion theory, the process  $\gamma + p \rightarrow p + \pi^0$  was investigated and its differential cross section was measured for 6 meson emission angles at photon energy  $210 \pm 14$  MeV in the laboratory system. The investigations were carried out in the bremsstrahlung beam of the

Card 1/3

L 13921-65  
ACCESSION NR: AP4047884

2

FIAN 265-MeV synchrotron. The neutral pions were observed by counting the two decay  $\gamma$  quanta in coincidence. The apparatus used was described by the authors previously (ZhETF v. 44, 1463, 1963, except that a liquid hydrogen target was used in an ordinary glass Dewar with wall thickness 1 mm. The hydrogen capacity of the Dewar was 4 liters, so that continuous measurements could be made for 12 hours. The differential cross sections for the production of  $\pi^0$  mesons from protons were calculated from the measured yield by the method described by Govorkov et al. (ZhETF v. 44, 878, 1963). Comparison of the results with those by others showed good agreement. In comparing the data with the cross sections calculated on the basis of the dispersion relation it is concluded that the data presented can be described within the framework of the bipion model without introduction of a subtraction constant in the  $\gamma + \pi \rightarrow \pi + \pi \rightarrow N = N$  channel. "The authors are grateful to A. M. Baldin for helpful discussions and R. S. Uvarov for assistance with the numerical calculations." Orig. art. has: 1 figure.

Cord 2/3

L 13921-65  
ACCESSION NR: AP4047884

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk  
SSSR (Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 15Apr64

ENCL: 00

SUB CODE: NP

NR REF SOV: 009

OTHER: 005

Card 3/3

L 41012-65 EWI(m)/T/EWA(m)-2

ACCESSION NR: AP5007709

S/0367/65/001/001/0092/0095

AUTHOR: Baldin, A. M.; Govorkov, B. B.; Denisov, S. P.; Lebedev, A. I.

TITLE: Near threshold photoproduction of neutral pions

SOURCE: Yadernaya fizika, v. 1, no. 1, 1965, 92-95

TOPIC TAGS: neutral pion production, pion photoproduction, electrical dipole photoproduction, near threshold pion production

ABSTRACT: The correct determination of the physical parameters of low-energy pions acquired special importance in connection with the hypothesis concerning the  $\pi^0$ -meson (A. M. Baldin, Nuovo Cim., 8, 569, 1958; A. M. Baldin, P. Kabir, DAN SSSR, 122, 361, 1958; A. M. Baldin, A. A. Komar, Proc. Int. Conf. on High Energy Physics at CERN, 1962, p. 657). Experimental data on the  $\gamma + p \rightarrow p + \pi^0$  reaction have been analyzed in the vicinity of the threshold so as to determine the electrical dipole amplitude E for  $\pi^0$ -meson photoproduction. Two methods of determining E lead to different values for this quantity. The authors remark in a note added in proof on 19 December 1964 that in view of the paper by Yu. D. Prokoshkin submitted to the 12th International Conference on High Energy Physics

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L 41012-65

ACCESSION NR: AP5007769

(Dubna, August 1964), which seems to rule out the existence of the  $\pi^0$  - meson, it is even more important to determine the correct S-wave  $\pi^0$  photoproduction amplitude on protons in the future. This could then eliminate the discrepancies found in the article. Orig. art. has: 9 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute of the Academy of Sciences, SSSR)

SUBMITTED: 20Jul64

ENCL: 00

SUB CODE: NP

NO REF SOV: 006

OTHER: 002

*llc*  
Card 2/2



ACC NR: AP6034220

SOURCE CODE: UR/0120/66/000/005/0060/0066

AUTHOR: Gapotchenko, A. G.; Govorkov, B. B.; Denisov, S. P.; Kotel'nikov, N. G.; Stoyanova, D. A.

ORG: Physics Institute of the Academy of Sciences, SSSR, Moscow (Fizicheskiy institut AN SSSR, Moskva)

TITLE: A spark chamber as a detector of high-energy electron and photo showers

SOURCE: Priory i tekhnika eksperimenta, no. 5, 1966, 60-66

TOPIC TAGS: spark camera, spark chamber, electron energy, *ELECTRON DETECTION*

ABSTRACT: Characteristics of a multi-plate spark chamber used as a detector of  $\gamma$ -quanta and electron showers whose energies range between 50 and 200 Mev are studied. The total number of sparks formed in the camera while it is registering showers is proportional to the energy of primary particles; the average number of sparks is linearly related to the primary particle energy. Fluctuations in the total number of sparks varies according to Poisson's law. A formula relating the thickness of the chamber electrodes with the camera resolution is derived. Data on spark distribution along the shower axis and on the effectiveness of the camera in registering  $\gamma$ -quanta are given. Orig. art. has: 8 figures.

SUB CODE: 20, 14/ SUBM DATE: 09Nov65/ ORIG REF: 003/ OTH REF: 006

Card 1/1

UDC: 539.1.073

ACC NR: AP6034243

(N)

SOURCE CODE: UR/0120/66/000/005/0225/0226

AUTHOR: Denisov, S. P.; Stoyanova, D. A.

ORG: Institute of High Energy Physics (Institut fiziki vysokikh energiy)

TITLE: Nanosecond coincidence circuit utilizing a secondary emission tube for the control of spark chambers

SOURCE: Pribery i tekhnika eksperimenta, no. 5, 1966, 225-226

TOPIC TAGS: coincidence circuit, spark chamber, scintillation detector, photomultiplier

ABSTRACT: A coincidence circuit based on a secondary emission tube with input signals applied to the control and the screen grids is described. A special feature of this scheme is the use of positive feedback between the plate and the cathode, which results in resolution time interval of approximately 3 nanoseconds, and an output pulse height of 100 v across a 300 ohm load. The biasing of the tube is arranged such that no output is generated unless two signals greater than 5 volts appear simultaneously on both grids. Single pulses up to 50 v produce no output. The positive feedback causes an avalanche conduction in the tube at the time of pulse coincidence. The input is provided by two scintillation detectors. The system is simple, reliable and stable in operation. The authors thank P. N. Shareyko for useful consultation. Orig. art. has: 3 figures.

SUB CODE: 09/18/

SUBM DATE: 05Nov65/

ORIG REF: 001

UDC: 539.1.075:621.374.36

Card 1/1

DENISOV, S.S.

Semiautomatic electronic titrimeter. Zav.lab. 22 no.1:106-110  
'56. (MLRA 9:5)

1. Konstruktorskoye byuro neftyanogo priborostroyeniya.  
(Volumetric analysis) (Electronic apparatus and appliances)

PHASE I BOOK EXPLOITATION

SOV/5269

Denisov, Sergey Sergeyevich

Elektronnyye pribory kontrolya i avtomatizatsii neftekhimicheskogo proizvodstva (Electronic Devices for Checking and Automation in the Petrochemical Industry) 2d ed., rev. and enl. Moscow, Gostoptekhizdat, 1960. 474 p. 7,000 copies printed.

Chief Ed.: A. A. Gor'kova; Tech. Ed.: E. A. Mukhina.

**PURPOSE:** This book is intended as an aid in the training and qualification improvement of technicians concerned with electronic devices at petroleum-processing and petrochemical enterprises. It may also be useful to the technical personnel working with checking and measuring instruments and automation in the petroleum, chemical, and other industries, as well as to students studying checking and measuring instruments.

**COVERAGE:** The book presents in a popular form basic information on the operational principles, assembly, and operation of electronic

Card ~~1/9~~

Electronic Devices (Cont.)

SOV/5269

checking and automation devices. Practical problems of checking and adjustment of electronic potentiometers, bridges, pH-meters, rotameters, and electron and photoelectron relays are examined. Methods of calculating the measuring circuits of potentiometers and bridges and of the recalibration of these devices are reviewed. Devices using radioactive isotopes, and the properties and application of semiconductor devices are described. Suggestions of readers of the first edition, particularly of the personnel of tsekh KIP Novoufimskogo NPZ (Department of Checking and Measuring Instruments of the New Ufa Petroleum Processing Plant), were taken into account in preparing this second edition, which represents a considerable expansion of the first. No personalities are mentioned. There are 23 references, all Soviet.

TABLE OF CONTENTS:

Foreword

3

~~Card 2/9~~

Denisov, Sergei S.: Elektronnyye kontrol'no-izmeritel'nyye pribory nefteavtogradov (Electronic Control and Measuring Devices for Petroleum Plants). Moscow: Gosdizart Nauch.-Tekh. Izdatel. Neft. i Gaz o-Tyuzh. Izd. 1955. 306 pp.

MASLENNIKOVA, Z.V.; DENISOV, S.S.; MUZYCHENKO, V.P.

Coulometric determination of small bromine numbers on the  
BI-1 analyzer. Zav. lab. 29 no.6:671-674 '63. (MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po perera-  
botke nefi i gaza i polucheniya zhidkogo topliva.  
(Coulometry) (Bromometry) (Olefins)

ACCESSION NR: AP4041687

S/0181/64/006/007/1921/1924

AUTHORS: Bronshteyn, I. M.; Denisov, S. S.

TITLE: Influence of the work function on the parameters of secondary electron emission

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 1921-1924

TOPIC TAGS: work function, beryllium, secondary electron, secondary emission, inelastic scattering, electron emission

ABSTRACT: The authors elaborate on earlier investigations by one of the authors (I. M. Bronshteyn and B. S. Frayman, DAN SSSR, v. 135, 1097, 1960; FTT v. 3, 1638 (1961); Radiotekhn. i elektron. v. 7, 1643, 1962). The earlier investigations have shown that the variation of the target work function leads only to the slow part  $\delta$  of the coefficient of secondary electron emission, but not on the fast part  $\eta$ . Since  $\delta$  is characterized by three other parameters ( $\delta_0$  --

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ACCESSION NR: AP4041687

effectiveness of primary electrons,  $S$  -- effectiveness of inelastically reflected electrons, and  $\lambda$  -- depth of the zone of emergence of the secondary electrons, the authors investigated the response of these parameters in beryllium to variation of the work function. Using the method and procedure of the  $\delta - \eta$  diagram, which were described in detail in the already cited references, they found that decrease in the work function increases  $S$  and  $\delta_0$ , and only  $\delta_0$  and  $S$  are affected, but not the value of  $\lambda$ . This indicates that the slow secondary electrons are for the most part absorbed rather than slowed down inside the secondary electron emergence zone. Orig. art. has: 4 figures.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A. I. Gertsena (Leningrad State Pedagogical Institute)

SUBMITTED: 18Oct63

DATE ACQ:

ENCL: 02

SUB CODE: NP

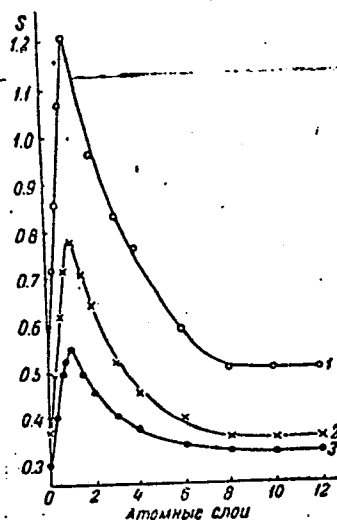
NR REF SOV: 006

OTHER: 000

Cord 2/4

ACCESSION NR: AP4041687

ENCLOSURE: 01



Dependence of efficiency  $S(d)$  of inelastically reflected electrons on degree of covering of the beryllium with adsorbed barium atoms

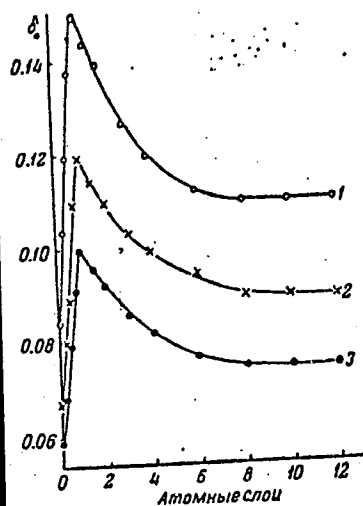
1 -  $E_p = 2$  keV, 2 - 3, 3 - 4

Atomic layers

Card 3/4

ACCESSION NR: AP4041687

ENCLOSURE: 02



The same as in Enc. 01, for the efficiency of the primary electrons

Atomic layers  
ard 4/4

L 10765-65 EWT(1)/EPA(w)-2/ESG(t)/EEC(1)-2 Pab-2.1 AS(mp)-2/ESD(dp)/SSD/  
ESD(t)/ESD(gs)/APW/ASD(1)-5/ESD(e)

ACCESSION NR: AP4044933

S/0181/54/006/009/2644/2649

AUTHORS: Bronshteyn, I. M.; Denisov, S. S.

TITLE: Inelastic scattering of electrons in solids for oblique incidence of the primary beam

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2644-2649

TOPIC TAGS: reflection coefficient, electron scattering, inelastic scattering, thin film, saturation

ABSTRACT: Measurements were made of the relative inelastic-reflection coefficient of primary electrons ( $E_p = 0.1\text{--}5$  keV) incident at  $\theta = 0\text{--}60^\circ$  on Be, Al, Si, Ti, Ni, Au and Pb films (deposited by evaporation in high vacuum). This coefficient was defined as  $\gamma = \eta_\theta/\eta_0$ , where  $\eta_\theta$  and  $\eta_0$  are the inelastic-reflection coefficients for the angles  $\theta$  and  $0^\circ$ . The dependence of  $\gamma$  on  $\theta$  agreed well with

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L 10765-65

ACCESSION NR: AP4044933

Luk'yanov's formula (ZhTF, v. 8, 671, 1938; Phys. Zs. Sow., v. 13, 123, 1938; ZhETF, v. 7, 856, 1937):  $\ln \gamma \approx \ln B - (2/3)\cos\delta$  (B is a constant). The value of  $\gamma$  rose with  $E_p$  reaching saturation at  $E'_p$ , which depended on the substance and the angle of incidence. In heavy elements (e. g., Au, Pb) the saturation occurred early, at  $E'_p = 0.5--0.8$  keV. In lighter elements (e.g. Be, Ti and Si) the saturation occurred much later: at 2--4.5 keV for  $\delta = 30^\circ$ . The results were interpreted in terms of Bethe's theory (Ann. Phys. v. 5, 325, 1940). Orig. art. has: 6 figures and 1 formula.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A. I. Gertsena (Leningrad State Pedagogical Institute)

SUBMITTED: 21Mar64

ENCL: 00

SUB CODE: SS

NR REF SOV: 010

OTHER: 008

Card 2/2

BRONSHTEYN, I.M.; DENISOV, S.S.

Inelastic electron scattering in solids with inclined incidence  
of the primary beam. Fiz. tver. tela 6 no.9:2644-2649 S '64.  
(MIRA 17:11)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut imeni  
A.I. Gertsena.

L 2499-66 EWT(1)/EPA(w)-2/EWA(m)-2 IJP(c) AT

ACCESSION NR: AP5014590

UR/0181/65/007/006/1846/1855

AUTHOR: Bronshteyn, I. M.; Denisov, S. S.

TITLE: Investigation of secondary electron emission from solids induced by obliquely incident primary electrons

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1846-1855

TOPIC TAGS: electron emission, secondary electron emission, angular distribution, electron reflection inelastic interaction

ABSTRACT: This is a continuation of earlier work by the authors (PTT v. 6, 2644, 1964), devoted to the angular dependence of the coefficient of secondary emission and of the coefficient of elastic reflection of the primary electrons. In the present article the authors establish certain laws governing the various secondary-emission parameters (coefficient of secondary emission, coefficient of inelastic reflection, efficiency of inelastic reflection, efficiency of primary electrons, relative number of secondary electrons) for beryllium, silicon, and lead for an obliquely incident primary beam, and the dependence of these parameters and of the energy distribution of the secondary electrons on the angle of incidence of the primary electrons. Particular attention is played to the role of inelastically

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L 2499-66

ACCESSION NR: AP5014590

3

reflected electrons in secondary emission. Plots of all the quantities against the primary energy and tables of the same quantities are included. Orig. art. has: 9 figures, 10 formulas, and 1 table.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A. I. Gertsena (Leningrad State Pedagogical Institute)

SUBMITTED: 17Sep64

ENCL: 00

SUB CODE: 88, HP

NR REF SOV: 012

OTHER: 001

Card

2/2



L 2208-66 EWT(1)/EPA(W)-2/EWA(m)-2 IJP(o) AT

ACCESSION NR: AP5017341

UR/0181/65/007/007/2252/2253

AUTHOR: Bronshteyn, I. M.; Denisov, S. S.

TITLE: Energy distribution of inelastically scattered electrons in solids for an obliquely incident primary beam

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 2252-2253

TOPIC TAGS: electron scattering, inelastic scattering, electron bombardment, lead, beryllium

ABSTRACT: This is a continuation of earlier work (FTI v. 4, 2047, 1962) where it was shown that when the primary beam is normally incident, the energy distribution curves of inelastically reflected electrons are practically independent of the atomic number of the material. In the present study the authors investigated in detail the energy distribution of the electrons inelastically reflected from lead in the primary-electron range 0.6--3 keV and at angles 0--75°, as well as from beryllium in the energy range 1--2.5 keV and at angles 0--80°. The experimental technique and the procedure are described in the earlier papers. Only the delay curves for  $e_p = 2$  keV are presented in the article. For the other values of  $e_p$ , the delay curves will be identical in form. The results indicate that the energy distribution of the inelastically-reflected electrons does not depend on the angle

Card 1/2

L 2208-66

ACCESSION NR: AP5017341

at which the primary electrons strike the solid. It is deduced therefore that the angular distribution of the inelastically reflected electrons should likewise be independent of the angle of incidence. Orig. art. has: 1 figure.

ASSOCIATION: Lenigradskiy gosudarstvennyy pedagogicheskiy institut im. A. I. Gersena (Leningrad State Pedagogical Institute) 44,55

SUBMITTED: 02Mar65

ENCL: 00

SUB CODE: 88

NR REF SOV: 004

OTHER: 003

Cord 2/2 DP

VEKSLER, Maks Aleksandrovich; DENISOV, Sergey Sergeyevich;  
PEIGEL, L.V., red. [deceased]

[Automation of the chemical analysis of solutions] Av-  
tomatizatsiia khimicheskikh analizov rastvorov. Mo-  
skva, Khimiia, 1965. 247 p. (MIRA 18:7)

PHASE I BOOK EXPLOITATION

SOV/4895

Blinov, I. A., S. V. Denisov, and V. K. Perfil'yev

Ekspluatatsiya elektronavigatsionnykh priborov na morskikh sudakh  
(Operation of Electric Aids to Navigation Aboard Marine Vessels)  
Leningrad, Izd-vo "Morskoy transport", 1960. 221 p. Errata  
slip inserted. 10,000 copies printed.

Specialist Ed.: I. A. Blinov; Reviewer: A. F. Matsyuto; Ed. of  
Publishing House: N. V. Sandler; Tech. Ed.: L. P. Drozhzhina.

PURPOSE: This book has been recommended as a textbook by the Department of Schools of the Ministry of the Merchant Marine for refresher courses for fleet command personnel. It may also be used by specialists operating electric navigational aids aboard ships and by students in schools of higher and secondary education.

COVERAGE: The book describes the principle of operation of several shipboard electric navigational apparatuses and the experience

Card ~~1~~/10

Operation of Electric Aids (Cont.)

SOV/4895

gained from their use. Basic knowledge of the structure of electric aids to navigation and of the principles of electrical and radio engineering is assumed. The authors, I. A. Blinov, Docent, S. V. Denisov, Director of the Laboratory of Electric Aids to Navigation, and V. K. Perfil'yev, who are associated with the Department of Navigation of the Leningradskoye vyssheye inzhenernoye morskoye uchilishche imeni Admirala S. O. Makarova (Leningrad Higher Marine Engineering School imeni Admiral S. O. Makarov) have used factory and company descriptions of navigational equipment, special publications, and their own working experience in preparing the manuscript. A footnote in the foreword deals with the present shortage of "Sperry-minor" gyrocompasses and "LEMK" logs. Acquaintance with these devices is deemed advantageous since single gyroscope compasses are now being lot-produced for the merchant fleet after a 20-year interruption. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Card ~~2/10~~

*For Denisov: Zaveduyushchiy laboratoriyey  
elektronavigatsionnykh priborov Leningradskogo  
vysshego inzhenernogo morskogo uchilishcha im.  
admirala Makarova*

L 38149-65 EEO-2/EWT(d)/EEC(k)-2/EEC(t)/EED-2/EWA(c) Pn-4/Po-4/Pq-4/Pg-4/  
Pae-2/Pk-4/Pl-4 BC BCK EXPLOITATION UR/ 45  
AM5006606

Blinov, Igor' Aleksandrovich; Denisov, Semen Vasil'yevich; Perfil'yev, Vladimir  
Konstantinov, ICh

Operation of electronic navigation instruments on ships (Eksploatatsiya elektro-  
navigatsionnykh priborov na morskikh sudakh) 2nd. ed., rev. and enl. Moscow-  
Leningrad, Izd-vo "Transport", 1964. 255 p. illus., diagrs. (in pocket).  
9000 copies printed. Editor: Z. S. Frishman; Technical editor: O. I. Kotlyar-  
kova; Proofreader: Ye. F. Khudyakova.

Series note: Kursy usovershenstvovaniya plavsostava MMF

TOPIC TAGS: automatic guidance, depth finding, gyrocompass, ship navigation

PURPOSE AND COVERAGE: This book was intended as a manual for courses to raise the  
qualifications of commanding officers in the navy; it may be of use also to speci-  
alists attending electronic navigation instruments on ships and to students in  
higher and secondary marine schools. The principles and experience in the applica-  
tion of different types of gyrocompasses, hydraulic ships' logs, depth sounding

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devices, and the automatic rudder are presented. The authors assume the reader to possess sufficient understanding of the design of electronic navigation instruments and the fields of electrical and radio engineering. The plant descriptions of instruments, some developments by TSNIDMF and LVIMU, and experience in the actual use of these instruments on ships were all utilized in preparing the book. The book has been authorized by the Otdel Uchebnykh Zavedeniy MUP as a text for courses to improve the qualifications of naval commanding officers.

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Inserts

SUB CODE: NO

SUBMITTED: 12Jun64

NR REF SOV: 000

OTHER: 000

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DEKISOV, S. YE.

Substitutes for brass stripes., Tekst. prom., 12, No 3, 1952.

DENISOV, Tat'yana Vasil'yevna; NEMUKHIN, V.P., red.

[Repair of the electric apparatus of diesel locomotives;  
contactors, electro-pneumatic valves, controller, reverser]  
Remont elektricheskikh apparatov teplovozov; kontaktory,  
elektropnevmaticheskie ventili, kontroller, reversor. Mo-  
skva, Transport, 1964. 47 p. (MIRA 17:6)

KOSYREV, Yu.: DENISOV, V.

Light filters with variable density. Sov.foto 20 no.1:41  
Ja '60. (MIRA 13:5)

(Photography--Light filters)

DENISOV, V. A. Cand Tech Sci -- "Study of ~~the~~ <sup>the</sup> conditions of formation and prevention of loam crusts <sup>g</sup> on carbon-steel castings." Mos, 1961 (State Committee of the Council of Ministers ~~for~~ for Automation and Machine Building "TsNIITMASH"). (KL, 4-61, 196)

177

DENISOV, V. A.

"Methods of Problem Solutions of Thermal Conductivity  
in Multilayer Solids and Its Application to the Problem  
of the Advancement of the Solidification Front."

Report submitted for the Conference on Heat and Mass Transfer, Minsk  
BSSR, June 1961.

DENISOV, V., kand.tekhn.nauk; KLEVTSOV, M., inzh.

Biotelemetry. Radio no.10:16-17 0 '61.  
(Telemetering) (Medical electronics)

(MIRA 14:10)

S/107/62/000/004/001/001  
D234/D301

AUTHOR: Denisov, V., Candidate of Technical Sciences

TITLE: Cybernetics and space

PERIODICAL: Radio, no. 4, 1962, 5-8

TEXT: The author gives a popular description of the use of computers for solving intricate problems connected with space navigation: The choice of the strongest and best heat resisting material for the space ship, calculations for the design of various automatic systems of same, accurate calculation of trajectories, starting times and places, and preparation for flight. The installation simulating the conditions of space travel, used for training of pilots, is also described. The article is to be continued in a future issue. There are 3 figures. ✓

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S/107/62/000/005/001/001  
D201/D302

3,2300

AUTHOR: Denisov, V., Candidate of Technical Sciences

TITLE: Cybernetics and space

PERIODICAL: Radio, no. 5, 1962, 7 - 10

TEXT: In this second and final part of his article (see Radio, no. 4, 1962) the author discusses the respective roles of automatic control and servo-systems in the navigational problems of space flight. During the active part of the flight after the rocket has become independent of the terrestrial gravitational field, the automatic control system comes into operation. The system consists of sensing elements of verticality, direction, acceleration etc. To minimize the inherent errors of control the traction force is made to act through the center of gravity of the rocket: with this center of gravity being displaced during the flight only along the longitudinal axis if possible. The drawback of autonomous control systems is the exclusion of the pilot in cases where the Earth base notices a large deviation from the programmed flight. This is over-  
Card 1/3



Cybernetics and space

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D201/D302

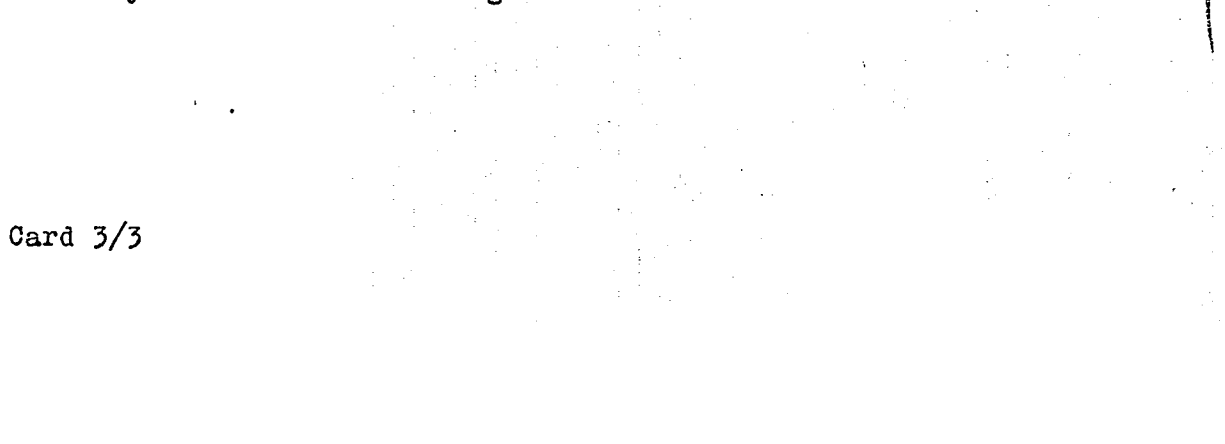
come by leaving only the motors and steering gear in the rocket and controlling the flight from the ground. After booster separation the rocket may begin to revolve. One of the first problems of orbital flight control is, therefore, stabilization and changing the speed and direction of the rocket. Methods of accomplishing this task are described. The astronaut takes over only in cases of failure of one of the automatic control systems or in cases which could not have been foreseen before launching. A similar situation would arise in interplanetary flights, when no communications with the ground base would be possible only at infrequent intervals of time. In such flights the astronaut will thus be in full control, supplemented by cybernetic machines. The astronaut-cybernetics system requires a full analysis of correlated human cybernetic and automatic machine behavior. Since the dominant factor will always be a human one, full investigation into all physiological and psychological factors of human behavior is necessary. It is however probable that initial exploration will be carried out by a cybernetic robot. The latter should be capable of situation analysis and have a power of decision. To develop such machines a number of complica-

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Cybernetics and space

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ted problems are yet to be solved, chiefly the problem of reliability. Communication within the solar system is now feasible and communication at longer distances could be achieved by lowering the rate of information transmission. Such a method was used in television transmission from the Soviet manned flight. The final problem is that of re-entry and landing. During re-entry the proper position of the slip and especially of the retro-rocket nozzle is of the greatest importance. This would have to be achieved by automatic control systems on board and the entry position will have to be determined by the cybernetic machine. Re-entry performance of the 'Vostok' capsule demonstrated the quality of existing Soviet cybernetic systems. There is 1 figure.



Card 3/3

DENISOV, V., kand. tekhn. nauk

The study of outer space continues. Radio no. 7:5 J1 '62.  
(MIRA 16:6)

(Artificial satellites, Russian)

DENISOV, V., kand.tekhn.nauk

The astronaut is at work, the devices are operating, and the  
medical doctors are attentive. Radio no.1:14-16 Ja '63.  
(MIRA 16:1)

(Astronautics)

DENISOV, Viktor, kandidat technicheskikh nauk

How the cosmonaut controls spaceship. Letecky obzor 7 no.8:  
246-247 Ag '63.

DENISOV, V., inzh.; OREKHOV, O., inzh.

Machine for removing snow. Zhil.-kom. khoz. 11 no.12:16,21 D  
'61. (MIRA 16:11)

DENISOV, V.A., kand. tekhn. nauk

Thermal conditions needed for obtaining carbon-steel castings  
without mechanical sticking. Mashinostroyeniye no.1:32-34  
Ja-F '63. (MIRA 16:7)

1. Nauchno-issledovatel'skiy i proyektno-tekhnologicheskoy  
institut mashinostroyeniya.  
(Steel castings)

DENISOV, V.A., dotsent; CHAPLYGIN, Yu.N., inzh.; SUD, I.I., kand. tekhn.  
nauk

Ionic drive system with "excavator" characteristics. Izv. vys.  
ucheb. zav.; gor. zhur. 7 no. 2: 137-142 '64. (MIRA 17:3)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V. Kuybysheva (for Denisov, Chaplygin). 2. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut neftyannogo mashinostroyeniya (for Sud). Rekomendovana kafedroy elektrotekhniki i elektroprivoda Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V. Kuybysheva.



GLUSHKOV, Georgiy Nikolayevich, inzh.; DENISOV, Valeriy Anatol'yevich  
inzh.; KRAYTSBERG, Meyer Itskovich, inzh.; SOKOLOV, D.V.,  
inzh., nauchn. red.; RYAZANTSEVA, L.I., red.

[Electrical equipment and power supply in construction]  
Elektrooborudovanie i elektrosnabzhenie stroitel'stva. Mo-  
skva, Stroiizdat, 1964. 310 p. (MIRA 17:7)

- [illegible]

DENISOV, V.A., inzh.

Modern excavator drive and ways to improve it. Izv.vys.ucheb.  
sav.; gor.shur. no.9:108-116 '58. (MIRA 12:6)

1. Moskovskiy gornyy institut.  
(Excavating machinery--Electric driving)

DENISOV, V.A., inzh.

~~Electronic~~ drive for heavy duty operations and the possibility  
of using mercury arc rectifiers in excavator drives. Izv.vys.  
ucheb.zav.; gor.zhur. no.11:124-132 '58. (MIRA 12:8)

1. Moskovskiy gornyy institut.  
(Excavating machinery--Electric driving)  
(Mercury arc rectifiers)